IN THE CLAIMS

Please amend the claims as follows:

Claims 1-19 (Cancelled)

Claim 20 (Previously Presented): A method for selectively quantifying a target adiponectin multimer in a biological sample, comprising:

(a) distinguishing the target adiponectin multimer from other adiponectin multimers in the biological sample by selective proteolytic digestion and by identifying one or more adiponectin multimers using at least one antibody that binds to adiponectin, and

(b) quantifying the target adiponectin multimer.

Claim 21 (Currently Amended): The method according to claim 20, wherein the target adiponectin is HMW-Ad and wherein the method comprises:

(a) digesting ULMW-Ad, LMW-Ad and MMW-Ad multimers in the sample with at least one protease; and

(b) immunologically quantifying the HMW-Ad ~~by the amount of antibody binding to HMW-Ad~~.

Claim 22 (Previously Presented): The method according to claim 21, wherein the at least one protease digests ULMW-Ad, LMW-Ad and MMW-Ad to a level undetectable by PAGE (2 to 15%) separation, but does not digest HMW-Ad to a level undetectable by PAGE (2 to 15%) separation when added to a buffer solution containing the adiponectin multimers and incubated for at least 60 mins at 37°C.

Claim 23 (Previously Presented): The method according to claim 21, wherein the at least one protease digests ULMW-Ad, LMW-Ad and MMW-Ad to a level undetectable by PAGE (2 to 15%) separation, but does not digest HMW-Ad to a level undetectable by PAGE (2 to 15%) separation, when the at least one protease is added to a 50mM phosphate buffer solution having a pH of 8.0 containing adiponectin multimers, followed by incubation for 60 minutes at 37°C.

Claim 24 (Previously Presented): The method according to claim 21, wherein the protease is derived from a microorganism.

Claim 25 (Previously Presented): The method according to claim 21, wherein the protease is selected from proteinase K, protease P "Amano," protease N "Amano" and Umamizyme.

Claim 26 (Previously Presented): The method according to claim 21, wherein the at least one protease includes proteinase K.

Claim 27 (Previously Presented): The method according to claim 21, wherein the digesting step is performed at 4°C to 60°C.

Claim 28 (Previously Presented): The method according to claim 21, wherein the digesting step is performed from 5 minutes to 24 hours.

Claim 29 (Previously Presented): The method according to claim 21, wherein HMW-Ad is immunologically quantified by sandwich ELISA.

Claim 30 (Previously Presented): The method according to claim 29, wherein the sandwich ELISA comprises:

(i) pretreating a sample with protease which is capable of digesting ULMW-Ad, LMW-Ad and MMW-Ad to a level undetectable by PAGE (2 to 15%) separation, but not capable of digesting HMW-Ad to a level undetectable by PAGE (2 to 15%) separation;

(ii) adding the pretreated sample to anti-Ad monoclonal antibody-coated plate and incubating at room temperature;

(iii) adding a biotin labeled antibody solution and incubating at room temperature;

(iv) adding a HRP labeled streptoavidin solution and incubating at room temperature;

(v) adding a substrate solution and incubating at room temperature;

(vi) adding a stop solution; and

(vii) measuring absorbance.

Claim 31. The method according to claim 20, wherein the biological sample is obtained from a human.

Claim 32 (Previously Presented): The method of claim 21, wherein said biological sample is obtained from a subject suspected of having a disease or pathological condition, and wherein said method further comprises:

evaluating a disease or pathological condition based on the amount of HMW-Ad in the sample.

Claim 33 (Previously Presented): The method as described in claim 32, wherein the evaluation is performed on the basis of change in the amount of HMW-Ad.

Claim 34 (Currently Amended): The method as described in claim 32, wherein the evaluation is performed through ~~amount~~ calculating the ratio of HMW-Ad to the total amount of adiponectin.

Claim 35 (Previously Presented): The method as described in claim 32, wherein the evaluation is performed through correlation of an index with the amount of HMW-Ad or with the ratio of HMW-Ad to the total amount of adiponectin.

Claim 36 (Previously Presented): The method as described in claim 32, wherein the disease or the pathological condition is type-II diabetes, arteriosclerotic disease, renal disease, hepatic disease, obesity, or metabolic syndrome.

Claim 37 (Previously Presented): The method as described in claim 32, for evaluating onset, diagnosis, development, prognosis, or therapeutic effect of type-II diabetes, arteriosclerotic disease, renal disease, hepatic disease, obesity, or metabolic syndrome.

Claim 38 (Currently Amended): The method of claim 20, wherein said target adiponectin multimer is middle molecular weight adiponectin (MMW-Ad), said method comprising:

(a) contacting a biological sample with a protease that digests ULMW-Ad and LMW-Ad,

(b) quantifying the total amount of adiponectin remaining in the sample treated in step (a),

(c) quantifying the amount of HMW-Ad in the biological sample, and

(d) subtracting the amount of HMW-Ad detected in (c) from the total amount of adiponectin quantified in (b),

wherein the amount of MMW-Ad corresponds to the amount quantified in (b) less the amount of HMW-Ad quantified in (c).

Claim 39 (Previously Presented): The method of claim 38, wherein said protease is a protease derived from a microorganism.

Claim 40 (Currently Amended): The method of claim 38, wherein said protease is a protease selected from the group consisting of protease S "Amano", protease A "Amano", sumizyme FP, sumizyme LP50D ~~LPSOD~~, and protease V8.

Claim 41(Previously Presented): The method of claim 38, wherein said protease is contacted with the biological sample at a concentration ranging from 0.01 to 100 U/mL or 0.01 to 100 mg/mL.

Claim 42 (Previously Presented): The method of claim 20, wherein said target adiponectin multimer is low molecular weight adiponectin (LMW-Ad) and said method comprises:

contacting a biological sample with an anti-LMW-Ad antibody, and

determining the presence of LMW-Ad in said sample.

Claim 43 (Previously Presented): The method of claim 42, wherein the anti-LMW-Ad antibody forms a complex with LMW-Ad, and the amount of the complex is used to determine the quantity of LMW-Ad in said biological sample.

Claim 44 (Previously Presented): The method of claim 42, wherein said anti-LMW-adiponectin antibody is a monoclonal antibody.

Claim 45 (Previously Presented): The method of claim 42, wherein said anti-LMW-adiponectin antibody is a polyclonal antibody.

Claim 46 (Previously Presented): The method of claim 42 which is selected from the group consisting of an ELISA, CLEIA, RIA and LTIA.

Claim 47 (Previously Presented): The method of claim 20, wherein said target adiponectin multimer is ultra low molecular weight adiponectin (ULMW-Ad) and said method comprises:

(a) quantifying the total amount of adiponectin in a biological sample,

(b) quantifying the amount of LMW-Ad, MMW-Ad and HMW-Ad in said sample, and

(c) subtracting the amount of LMW-Ad, MMW-Ad and HMW-Ad in said sample from the total amount of adiponectin in said sample,

wherein the amount of ULMW-Ad corresponds to the amount quantified in (a) less the amount quantified in (b).

Claim 48 (Currently Amended): A kit comprising:

(a) a protease which digests ULMW-Ad, LMW-Ad and ~~MMW-AD~~ MMW-Ad multimers, and

(b) an anti-human adiponectin antibody which recognizes adiponectin and which is immobilized on an insoluble carrier.